REMARKS

This application contains claims 1-54. Claims 22 and 49 have been canceled without prejudice. Claims 19, 23, 36, 46 and 50 are hereby amended. No new matter has been introduced. Reconsideration is respectfully requested.

Claims 1-18 and 28-45 were rejected under 35 U.S.C. 103(a) over Bajic (U.S. Patent Application Publication 2003/0227893) in view of Melpignano et al. (U.S. Patent Application Publication 2003/0003912). Applicant respectfully traverses this rejection.

Claim 1 recites apparatus for mobile communication in which a plurality of access points in a WLAN share a common BSSID. Upon receiving an uplink packet, the access points convey messages over a LAN to a manager node via a switch. The manager node processes the messages so as to select one of the access points to respond to the uplink packet within a time limit specified by a predefined WLAN protocol. Meeting this time limit is problematic in the context of this sort of distributed operation, as explained in paragraphs 0010 and 0070 of US 2004/0156399 (the published version of this application). A number of specific solutions to this problem are described in the specification.

Bajic describes a network architecture in which a switch communicates with multiple repeaters, which communicate with mobile stations using the 802.11 WLAN protocol (paragraphs 0045-0047). The Examiner considered Bajic's switch 301 to be equivalent to the manager node in claim 1, and repeaters 302 to be equivalent to the access points. The Examiner acknowledged (page 5, lines 3-5 in the Official Action) that Bajic fails to teach that his switch could operate in the manner recited in claim 1 while meeting the time limit imposed by the WLAN protocol.

Melpignano describes radio communication arrangements in which a master unit (access point AP) holds information about the topology of a shared resource network. During handoff of a slave unit (mobile terminal MT) from one master unit to another, the first master unit activates a paging procedure by the second master unit (abstract). Thus, in contrast to the mode of operation recited in claim 1, each of Melpignano's mobile terminals communicates at any given time with only a single access point. As a result, Melpignano clearly could not teach or suggest the features of operation of the manager node that are set forth above.

In the present rejection, however, the Examiner maintained that Melpignano "discloses a response to the uplink packet is within a time limit specified by the WLAN protocol." In support of this contention, the Examiner cited paragraphs 19, 31, 95, 101, 105 and 108 in Melpignano, and specifically the statement in paragraphs 19, 31 and 95 that "the original connection may for example be broken on the expiration of a preset timeout or on receipt of an acknowledgment message received from said next master unit."

The cited passage in Melpignano refers to the manner in which a slave unit (MT) is handed over from one master unit (AP) to another. As explained in paragraph 19, for example, the original connection between the slave unit and the first master unit is not torn down or released until a new connection is at least under establishment between the slave unit and the next master unit. Once the new connection is established, the original connection may be broken. One way to break the connection is simply to allow a preset timeout to expire. Another way is to send an acknowledgment message from the next master unit to the first master unit (as explained in greater detail in paragraph 105).

It thus appears that the Examiner has completely misinterpreted Melpignano in rejecting claim 1. The cited passages in Melpignano teach that a time limit for response should be intentionally allowed to expire as a convenient means for supporting a handover. In other words, the cited passages teach away from responding within a specified time limit as recited in claim 1. On the other hand, the "acknowledgment" mentioned in the cited passages is not a response from an access point to a mobile station, as recited in claim 1, but is rather a message sent between two access points. Melpignano does not even hint that an access point should be instructed to transmit a response to a mobile station within a time limit specified by a WLAN protocol.

Therefore, claim 1 is patentable over the cited art. In view of the patentability of claim 1, dependent claims 2-18 are also believed to be patentable.

Claims 28-45 recite methods for mobile communication based on principles similar to those implemented in the apparatus of claims 1-18. Therefore, claims 28-45 are believed to be patentable, as well, for the reasons explained above.

Claims 19-27 and 46-54 were rejected under 35 U.S.C. 103(a) over Bajic in view of Melpignano and further in view of Patel et al. (U.S. Patent Application

Publication 2004/0267896). Applicant has amended independent claims 19 and 46 to clarify the distinction of the claimed invention over the cited art by incorporating the limitations of claims 22 and 49, now canceled. Dependent claims 23 and 50 have been amended for proper dependence in view of the cancellation of claims 22 and 49.

Claim 19 recites apparatus for mobile communication in which a plurality of access points in a WLAN communicate over a LAN with a manager node via a switch. The manager node has a first port used exclusively for receiving uplink messages from the access points, and a second port used for conveying the messages to their destinations. The claim has been amended to recite that the manager node has first and second addresses on the LAN, which are respectively associated with the first and second ports. Thus, the access points convey uplink messages over the LAN in the form of data frames directed to the first address.

Patel describes a system for data transmission and reception that includes a wireless data broadcast system and a wireless data return path system (abstract). In one embodiment, shown in Fig. 2, a router 215 connects an uplink 216 to one port and a downlink 218 to a different port. The uplink transmits data to end users at high speed (paragraph 23). The downlink is identified as "sorter-multiplexer 218," which sorts and multiplexes return path traffic from the end users (paragraph 25). Thus, although Patel's router has different ports for uplink and downlink, they are not connected to any LAN and serve a very different purpose from the dual ports of the manager node in claim 19. Patel makes no mention or suggestion of assigning different addresses to his uplink and downlink ports, and indeed would have had no motivation to do so in the system configurations that he describes.

In rejecting claim 22 in the present Official Action, the Examiner asserted that the combination of Bajic and Melpignano discloses the limitations of this claim (which have now been incorporated into claim 19). The Examiner gave no rationale for this assertion, however, and failed to cite any specific passages in the references in support of the assertion. Applicant has studied the references carefully and has found no mention or suggestion whatsoever of associating first and second LAN addresses with the first and second ports of the manager node, as is now recited in amended claim 19.

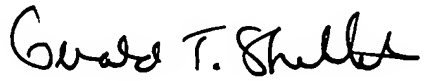
Therefore, claim 19, as amended, is patentable over the cited art, as are claims 20, 21 and 23-27, which depend from claim 19.

Claims 46-48 and 50-54 recite methods for mobile communication based on principles similar to those implemented in the apparatus of claims 19-21 and 23-27. Independent claim 46 has been amended in like fashion to claim 19. Therefore, claims 46-48 and 50-54 are believed to be patentable, as well, for the reasons explained above.

Notwithstanding the patentability of the independent claims in this application, the dependent claims are also believed to recite independently-patentable subject matter. In the interest of brevity, however, Applicant will refrain from arguing the independent patentability of the dependent claims at present.

Applicant believes the amendments and remarks presented above to be fully responsive to all of the grounds of rejection raised by the Examiner. In view of these amendments and remarks, all of the claims in this application are believed to be in condition for allowance. Prompt notice to this effect is requested.

Respectfully submitted,
WELSH & KATZ, Ltd.



Gerald T. Shekleton
Reg. No.: 27,466

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Welsh & Katz, Ltd.
120 S. Riverside Plaza, 22nd Floor
Chicago, Illinois 60606
Telephone 312 655 1500